From *E. polystachya* it differs also in the smaller anthers and glabrous foliage. The var. *soluta* differs from the typical form mainly in the more purple narrower spikelets, but at times has the aspect of a distinct species.

CORNELL UNIVERSITY, Ithaca, New York.

ADDITIONS TO THE FLORA OF MOUNT DESERT, MAINE.

WM. RANDOLPH TAYLOR.

THE appearance in 1894 of a Flora of Mount Desert, Maine, by E. L. Rand and J. H. Redfield marked the culmination of the efforts of several enthusiastic naturalists to make a complete botanical survey of the island. This very valuable list was soon followed by a series of reports of the discovery of additional species. These were mostly phanerogams reported in RHODORA by Mr. Rand, but lesser extensions of the other groups of plants have also been made. In 1908 the Josselyn Botanical Society of Maine held a summer meeting at the village of Manset, and later published a list of the plants noted in the neighborhood.[1] It has become increasingly evident that the island, due to its position, conformation and geological history, supports an exceedingly varied and interesting flora. Because of its unique character it seems advantageous to extend the list of plants known to occur there as rapidly as possible. This is especially so now that we have a very accurate list from the islands just southwest of the Mount Desert group, a Flora of the Penobscot Bay Region by Albert F. Hill, with which a comparison of the Flora of Mount Desert shows many interesting similarities.[2]

The writer, in the company of Dr. J. M. Macfarlane, spent a large part of the summer of 1915 on the island, and returned for a part of the summer of 1920, on both occasions making Manset the headquarters for botanical work. A considerable number of additional forms were found, as well as new localities for plants reported in the Rand and Redfield Flora as rare. The following list is presented of material collected by Dr. Macfarlane and the writer in 1915, and by the latter alone in 1920. With great kindness Miss Annie Lorenz

[1] Bulletin of the Josselyn Botanical Society of Maine, No. **2**: 1–23. 1908.
[2] Proceedings of the Portland Society of Natural History **3**: 199–304. 1919.

permitted the inclusion of her collection data for such unreported hepatics as she had found, and which had later been independently detected by the writer. Samples of these were sent to her for determination. Previous to his last visit Miss Lorenz spent part of two summers in the collection and study of the hepatics of the island, a full report on which will appear in due time. It will be seen that the list is not one of little known forms, but rather of plants elsewhere familiar, which due to local scarcity or other causes, have escaped observation here. Several fresh-water algae are included since a few were admitted to the Rand and Redfield Flora, but the total of species reported represents but a small fraction of the probable number present on the island. Determinations were wherever practicable verified by comparison with identified material from a dependable source, or by the kindness of Dr. Marshall A. Howe, Mr. Stewardson Brown and Mr. George B. Kaiser, to whom certain specimens were submitted and to whom the writer is much indebted for assistance. For literature on Maine plants he must thank Mr. Arthur H. Norton. Specimens are to be found in the herbaria of the University of Pennsylvania (U. P.) and the writer (T.).

Mougeotia genuflexa (Dillw.) Ag. Lower Hadlock Pond, Sept. 1920 (T. 3125).

Botryococcus Braunii Kütz.[3] Echo Lake, Aug., 1920.

Tetraspora lubrica (Roth) Ag. Stream in woods, between Lower Hadlock Pond and Northeast Harbor, Sept., 1920 (T. 3131).

Chlorococcum humicola (Naeg.) Rabenh. Ice Pond, Manset, Aug., 1920 (T. 3119).

Codiolum petrocelidis Kck. Seawall, among filaments of *Petrocelis*, Aug., 1920 (T. 3128).

Zoochlorella parasitica Brandt. In *Ophrydium*, Ice Pond, Manset, Sept., 1920 (T. 3120).

Ankistrodesmus falcatus (Corda) Ralfs. Pool in an old cellar, abundant, Manset, Sept., 1920 (T. 3118). Associated with this were the following four species:

Kirchneriella contorta (Schmindle) Bohlin. Scarce.

Scenedesmus dimorphus (Turpin) Kütz. Abundant.

Scenedesmus abundans brevicauda G. M. Smith. Very scarce.

Scenedesmus quadricauda parvus G. M. Smith. Scarce.

[3] Identification based on living material, not abundant enough for preparation of an herbarium specimen.

DICTYOSPHAERIUM PULCHELLUM Wood.[3] Echo Lake, Aug., 1920.

MONOSTROMA UNDULATUM FARLOWII Foslie. Seawall, tide pools, very scarce, Aug., 1920 (T. 3204).

CHAETOSPHAERIDIUM PRINGSHEIMII Klebahn.[3] On *Oedogonium sp.*, Echo Lake, Aug., 1920.

DRAPARNALDIA GLOMERATA (Vauch.) Ag. In a spring, southwest part of the island; exact locality lost, 1915 (T. 3363).

HERPOSTEIRON VERMICULOIDES (Wolle) Collins. On *Oedogonium sp.* Echo Lake, southern end east of Canada Brook, Aug., 1920 (T. 3127).

NITELLA TENUISSIMA (Desv.) Coss. & Germ. Southern end of Echo Lake on a sandy bottom, Sept., 1915, seen again, 1920 (T. 1531).

BOTRYDIUM GRANULATUM (L.) Grev. Manset, shore of Ice Pond, Aug., 1920 (T. 3117).

Under the name *Lithothamnion polymorphum* L., F. S. Collins includes in the Mount Desert Flora forms which probably are to be recognized as distinct from the *Lithothamnion polymorphum* of Linnaeus. Of these were collected:

LITHOTHAMNION GLACIALE Kjellm. Seawall tide pools, Sept., 1920 (T. 3205).

LITHOTHAMNION COMPACTUM Kjellm. (= *Phymatolithon compactum* (Kjellm.) Foslie. Seawall tide pools, Sept., 1920 (T. 3206).

RICCARDIA PINGUIS (L.) S. F. Gray. Upper Hadlock Pond, July, 1920, Lorenz. On twigs and humus, cedar swamp on trail between Manset and Bass Harbor, Aug., 1920, Taylor (U. P. 71003, T. 3246).

RICCARDIA LATIFRONS Lindb. Roberts Meadow, July, 1919, Cranberry Heath, July, 1920, Lorenz. On twigs and humus, cedar swamp on trail between Manset and Bass Harbor, Aug., 1920, Taylor (T. 3243).

BLASIA PUSILLA L. Seal Cove Road near Southwest Harbor, on the sides of a ditch, Aug., 1920 (T. 3248).

FOSSOMBRONIA FOVEOLATA Lindb. Jordan and Bubbles Ponds, July, 1920, Lorenz, Muddy shore of Ice Pond, Manset, Aug., 1920. Taylor (U. P. 71002, T. 3275).

CHILOSCYPHUS FRAGILIS (Roth.) Schiffn. Hunter Brook, July, 1919, Stanley Brook, July, 1920, Lorenz. Cedar swamp on trail between Manset and Bass Harbor, Aug., 1920 (U. P. 65193, T. 3273).

FISSIDENS CRISTATUS Wils. Between the Hadlock Ponds, Sept., 1920 (U. P. 71000, T. 3343).

Orthotrichum sordidum Sull. & Lesq. Trees, Manset, Aug., 1920, Southwest Harbor, Sept., 1920 (U. P. 65866, T. 3397, 3315).

Mnium affine ciliare (Grev.) C. Mueller. Cedar swamp on trail between Manset and Bass Harbor, Aug., 1920. Perhaps in the Rand and Redfield list included under the name of *Mnium affine* Bland. (U. P. 40016, T. 3292).

Mnium punctatum elatum Schimp. Lower Hadlock Pond, Sept., 1920, and West side of Beech Mountain, Aug., 1920 (U. P. 65738, T. 3290, 3289).

Aulacomnium androgynum (L.) Schwaegr. Trail between Manset and Bass Harbor, on dead twigs, Aug., 1920 (U. P. 71008, T. 3311).

Thuidium abietinum (L.) Br. and Sch. Summit of Flying Mountain, Sept., 1920 (U. P. 65990, T. 3339).

Habenaria lacera (Michx.) R. Br. Wet meadow, Fernald Cove Road, Aug., 1915. Collected in 1914 by Dr. Macfarlane, and again in 1915, when accompanied by the writer (U. P. 64843, T. 1275).

Habenaria psycodes (L.) Sw. Marshy edge of woods, inland from Ship Harbor, Sept., 1915. This species was reported by W. H. Dunbar but Rand and Redfield reject the record, which lacked locality, considering that a small form of *Habenaria fimbriata* (Ait.) R. Br. was mistaken for this species. The material from near Ship Harbor, however, is quite typical (U. P. 67559, T. 1274).

Salix pentandra L. Roadside, Northeast Harbor, probably escaped from cultivation, Aug., 1915 (U. P. 67564, T. 1373).

Vicia angustifolia segetalis (Thuillier) Koch. Roadside in woods, Southwest Harbor, Aug., 1915 (T. 1311, 1312).

Linum catharticum L. Roadside, Seawall Point. This interesting little plant was quite abundant at this station in Aug., 1915, and seemed to be in a thriving condition when revisited in 1920 (U. P. 67522, T. 1430).

University of Pennsylvania.